¥		CENTRAL INT	ELLIGENCE AGENCY		
	CLASSIFICATION		CRET		50 <b>V</b> 1 UI
			Y INFORMATION	en e	50X1-HL
		Mervina:	TION REPORT		
				CD NO.	
COUNTRY	USSR/Germany (Se	viet Zone)		DATE DISTR. 8 AT	igust 1952
SUBJECT	Seviet Scientifi	e Measuring Instr	NO. OF PAGES2		
			and the second second	The state of the s	
DATE OF NFO.				NO. OF ENCLS.	
PLACE				SUPPLEMENT TO	50X1-HUM
CQUIRED				REPORT NO.	A Commence
TI'ON OF ITS C	U.S. CODE, AS AMENDED. ITS TO ONTENTS TO OR RECEIPT BY AM UNI	AUTHORIZED PERSON IS	THIS IS UNEW	ALUATED INFORMATION	UN
OHIBITED BY L	AW. THE REPRODUCTION OF THIS	FORM IS PROMIBITED.			50X1-HUM
-					
1.		MSWW AF the	campanant tyat war	ont a avo basta so	
1	measuring instru	ments, the situati	ion in regard to t	ents are basic so	stive of
1.	the entire instr	ments, the situati ument field in the	ion in regard to t s USSR. The diffi	hese may be indicated the coulty the Soviets	ative of have in
1.	the entire instrubulding high re-	ments, the situation whent field in the sistance parmadent	ion in regard to t s USSR. The diffi t magnet moving de	hese may be indicated the societs of the societal metal meta	ative of have in er movements
	the entire instruction building high re- is partly due of	ments, the situati wment field in the sistance phemenent ther to their incl	ion in regard to t s USSR. The diffi t magnet moving of bility to manufact	hese may be indicated by the Soviets of observations and the second metal meta	ative of have in er mevements
	the entire instruction building high re- is partly due of resistance, low inability to many	ments, the situation on the sistance parmanent their inal their inal temperature coeffi	ion in regard to to to USSR. The diffit to magnete moving of bility to manufact icient wire in the	hese may be indicated the societs of the societal metal meta	ative of have in or nevements ph s. or their
	the entire instrabuilding high re- is partly due of resistance, low	ments, the situation on the sistance parmanent their inal their inal temperature coeffi	ion in regard to to to USSR. The diffit to magnete moving of bility to manufact icient wire in the	hese may be indis- culty the Soviets if electrical met- mrs or procure him smaller diameter	ative of have in or nevements ph s. or their
	the entire instruction building high re- is partly due of resistance, low inability to many	ments, the situation on the sistance parmanent their inal their inal temperature coeffi	ion in regard to to to USSR. The diffit to magnete moving of bility to manufact icient wire in the	hese may be indis- culty the Soviets if electrical met- mrs or procure him smaller diameter	ative of have in or nevements ph s. or their
	the entire instruction building high re- is partly due of resistance, low inability to many	ments, the situation on the sistance parmanent their inal their inal temperature coeffi	ion in regard to to to USSR. The diffit to magnete moving of bility to manufact icient wire in the	hese may be indis- culty the Soviets if electrical met- mrs or procure him smaller diameter	ative of have in or nevements ph s. or their
	the entire instruction building high re- is partly due of resistance, low inability to many	ments, the situation on the sistance parmanent their inal their inal temperature coeffi	ion in regard to to to USSR. The diffit to magnete moving of bility to manufact icient wire in the	hese may be indis- culty the Soviets if electrical met- mrs or procure him smaller diameter	ative of have in or nevements ph s. or their
	the entire instruction building high re- is partly due of resistance, low inability to many	ments, the situation on the sistance parmanent their inal their inal temperature coeffi	ion in regard to to to USSR. The diffit to magnete moving of bility to manufact icient wire in the	hese may be indis- culty the Soviets if electrical met- mrs or procure him smaller diameter	ative of have in or nevements ph s. or their
	the entire instruction building high re- is partly due of resistance, low inability to many	ments, the situation on the sistance parmanent their inal their inal temperature coeffi	ion in regard to to to USSR. The diffit to magnete moving of bility to manufact icient wire in the	hese may be indis- culty the Soviets if electrical met- mrs or procure him smaller diameter	ative of have in or nevements ph s. or their
	the entire instruction building high re- is partly due of resistance, low inability to many	ments, the situation on the sistance parmanent their inal their inal temperature coeffi	ion in regard to to to USSR. The diffit to magnete moving of bility to manufact icient wire in the	hese may be indis- culty the Soviets if electrical met- mrs or procure him smaller diameter	ative of have in er mevements sh sp or their
	the entire instruction building high re- is partly due of resistance, low inability to many	ments, the situatiument field in the sistance parmanent their inatemperature coefficients afacture the deli-	ion in regard to to to USSR. The diffit to magnete moving of bility to manufact icient wire in the	hese may be indis- culty the Soviets if electrical met- mrs or procure him smaller diameter	ative of have in or nevements ph s. or their
	the entire instribuilding high resistance, low inability to manimore likely.  CLASSIFICATION	ments, the situation when the sistance parmatent their inal temperature coefficient when the delicature the delicature of the delicature o	ion in regard to to to USSR. The diffit magnet moving of bility to manufact icient wire in the sate meter mevener	hese may be indis- culty the Soviets if electrical met- mrs or procure him smaller diameter	ative of have in er mevements sh sp or their
STATE ARMY	the entire instribuilding high resistance, low inability to manimore likely,  CLASSIFICATION	ments, the situation of the sistance parmater their inal temperature coefficient at the sistance of the sistan	ion in regard to to to USSR. The diffit magnet moving of bility to manufact icient wire in the sate meter mevener	hese may be indis- culty the Soviets if electrical met- mrs or procure him smaller diameter	ative of have in er mevements sh sp or their

50X1-HUM

	SECRET	W Land	
			50X1-HUM
	سيري س	•	

2. The Soviets had difficulty in producing high resistance millivoltmeters; the millivoltmeters they made had resistances no higher than 75 to 100 ohms. For 50X1-HUM instruments with higher resistance values, they had to rely on imported ones.

primarily German

no rectifier-type AC instruments — all were of the iron-vane type. There was no apparent lack of oscilloscopes, yet very few vacuum tube voltmeters were in evidence. A few recording instruments were available, but most indicating instruments were milliveltmeters. These were calibrated periodically, using a potentiometer and a standard cell. The standard cells were of Soviet manufacture, of the unsaturated type, and proved very satisfactory. Various special instrument assemblies were built involving simple electronic circuits of no particular originality. Many instrumentation problems dealt with 50X1-HUM thermocouples and thermocouple installations. There was difficulty in obtaining thermocouple wire of sufficiently high uniformity.

SECRET